

AMENDMENT TO THE DRAWINGS

The attached sheet of drawings includes the following changes:

In Fig. 1, a “Prior Art” legend is added.

Attachment: Replacement Sheet.

REMARKS

Claims 1, 4-19, 23-29, and 32-41 are all the pending claims, with claims 1 and 29 being written in independent form. By virtue of this Amendment, Applicants cancel claim 2, 3, 20-22, 30, and 31 without prejudice or disclaimer.

I. Drawings:

As requested by the Examiner, Applicants amend Fig. 1 by incorporating a “Prior Art” legend.

II. Claim Objections:

The Examiner objects to claims 1 and 29 because the term “HTc superconductor material” should be defined in the claims. To address the Examiner’s concerns, Applicants amend claims 1 and 29 by deleting the objectionable term in favor of reciting that the secondary-side coil of the transformer includes “superconductor material with high critical temperature T_c .” That is, the material has superconducting characteristics at temperatures below a high critical temperature T_c . As is well known in this art, the superconductivity phenomenon may occur in some materials at low critical temperatures LT_c , approaching absolute zero (or 0 K). The superconductivity phenomenon may occur in other materials at high critical temperatures HT_c , which are typically below room temperature but far higher than LT_c .

III. Allowable Subject Matter:

The Examiner indicates that claims 10, 11, 24-26, 38 and 39 would be allowable if rewritten in independent form. Applicants do not, however, rewrite the claims as suggested by the Examiner because independent claims 1 and 29 are believed to be allowable for the reasons discussed in detail below.

IV. Claim Rejection Under 35 U.S.C. §112(2nd):

The Examiner rejects claim 15 under 35 U.S.C. §112(2nd) because it recites the term “main frequency,” which is alleged to be unclear. As a path of least resistance, and without acquiescing to the correctness of the Examiner’s position, Applicants amend claim 15 by altogether deleting the objectionable term.

Applicants respectfully submit that amended claim 15 more particularly points out and distinctly claims the subject matter regarded as the invention, thereby overcoming the raised rejections under § 112(2nd).

V. Claim Rejections On Prior Art Grounds:

The Examiner rejects claims 1, 2, 4, 12-19, 21, 22, 27-29, 32, 40 and 41 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,965,969 to Gamble et al. (“Gamble”); claims 5-9, 23 and 33-37 under 35 U.S.C. § 103(a) as being obvious over Gamble in view of U.S. Patent No. 5,990,459 to Feustel et al. (“Feustel”); and claims 3, 20, 30 and 31 under 35 U.S.C. § 103(a) as being obvious over Gamble in view of U.S. Patent No. 4,709,314 to Van de Klundert et al. (“Van de Klundert”). Applicants respectfully traverse all of these rejections in view of the following remarks.

As a preliminary matter, Applicants respectfully point out that the Gamble reference has not be made formally of record. *Accordingly, Applicants respectfully request the Examiner to forward a PTO-892 Form listing the Gamble reference with the next Patent Office paper.*

Independent claims 1 and 29 recite (albeit in slightly different formats) that the secondary-side coil of the transformer includes “superconductor material with high critical temperature T_c .” Example, non-limiting embodiments of this feature are discussed throughout the specification.

The Examiner relies upon Gamble to teach the claimed secondary side coil. Applicants respectfully disagree, however, because Gamble’s coil is not a superconducting secondary coil for a transformer. Indeed, the exact portion of the reference cited by the Examiner (i.e., col. 5, lines 25 - 30) does not even mention that the secondary coil 42 has superconducting characteristics. On the contrary, the straightforward disclosure (see col. 4, line 63-66 and col. 9, lines 13 to 16) indicates that the secondary coil 42 is a component of a conventional transformer that is known *per se*, and thus comprises conventional coils. This is in contrast to the secondary transformer coil of the claimed invention, which includes conductors made from a superconducting material, namely the HTc superconducting material.

Turning to the next point, the secondary reference to Van de Klundert does not make up for the deficiencies of the primary reference. In deed, Van de Klundert discloses a secondary coil 1a, 1b of a transformer with superconductors. But these superconductors are made of a metal superconducting material with low T_c , the so-called LTc (low critical temperature) superconducting material.

Finally, Applicants respectfully submit that the secondary reference to Feustel does not even contemplate components of superconducting technology. Rather, this reference discloses a heating system, e.g. as is used in a vehicle (see col. 1, lines 7 to 11).

In summary, none of the prior art relied upon by the Examiner teaches or suggest that a secondary coil of the transformer includes “superconductor material with high critical temperature T_c .” Thus, the prior art (taken alone or in combination) cannot meet each and every feature of independent claims 1 and 29.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1, 4-19, 23-29, and 32-41 in connection with the present application is earnestly solicited.

If any further matters need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By



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